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ABSTRACT

TEMAS is an apperception test depicting Hispanic and Black characters (minority version) or White characters (non-minority version) interacting in urban settings and expressing culturally oriented themes. It is scored for cognitive, affective, and personality functioning. The normative profiles, reliability, and criterion-related validity of TEMAS were compared for school and clinical children from three different Hispanic cultures. Subjects were: (1) 280 students in grades 1 through 6 and 50 child psychiatric outpatients in San Juan (Puerto Rico); (2) 167 students in grades 1 through 6 and 67 psychiatric outpatients of Puerto Rican background in New York; and (3) 59 children in grades 2 through 7 in Buenos Aires (Argentina). Children in New York and Puerto Rico were administered 23 minority TEMAS cards, the Spielberger Trait-Anxiety Scale for Children, and the Piers-Harris Scale. Children in Argentina were administered 10 TEMAS cards, the non-minority short form, and the Piers-Harris Scale. Results support the use of TEMAS with these cultural groups, but suggest that some TEMAS cards do not pull the designated personality functions as consistently with native Puerto Rican and Argentinian children. The reliability and validity estimates for the native Puerto Rican children were less favorable than were those for mainland U.S. groups. Preliminary evidence suggests that the characters, setting, and events of some pictures in the TEMAS are not appropriate in Argentinian culture. Findings point to the need to revise selected TEMAS cards to be culture specific. Three tables summarize study data. (Author/SLD)

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Cross-Cultural Standardization of TEMAS in Three Hispanic Subcultures

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Abstract

Mental health clinical services research has stressed the urgency of developing culture-sensitive instruments for psychological assessment and psychodiagnosis of ethnic, racial, and linguistic minority children. The TEMAS test is an apperception test depicting Hispanic and Black characters (minority version) or White characters (non-minority version) interacting in urban settings and expressing culturally oriented themes, and is scored for cognitive, affective, and personality functioning. This study compared the normative profiles, the reliability, and the criterion-related validity of TEMAS with school and clinical children from three different Hispanic cultures: Puerto Ricans in New York City, natives of San Juan, Puerto Rico, and South Americans in Buenos Aires, Argentina. Children in New York and Puerto Rico were administered 23 minority TEMAS cards, the Spielberger Trait-Anxiety Scale for Children, and the Piers-Harris Self Concept Scale. Argentinean children were administered 10 TEMAS cards, the nonminority short form, and the Piers-Harris Scale. Results of the study support the use of TEMAS with examinees in the three cultures, but also suggest that some TEMAS cards do not pull the designated personality functions as consistently with native Puerto Rican and Argentinean children. The findings point to the need to revise selected TEMAS cards to be culture specific.

Cross-Cultural Standardization of TEMAS in Three Hispanic Subcultures

Projective techniques, especially the Rorschach and the TAT, have been used to probe the cognitive, affective, and personality functioning of individuals from different cultural backgrounds. From the inception of cross-cultural investigations using projective tests in the 1940's, it was observed that the TAT (Murray, 1943) stimuli had questionable relevance to individuals of different cultures; hence, culturally sensitive TAT stimuli were developed to study such groups as Mexican Indians, Ojibwa Indians, Southwest Africans, and South Pacific Micronesians (Henry, 1955). However, such early efforts to provide a culture-specific and sensitive interpretive TAT framework has not been eagerly pursued by psychometricians (Dana, 1986).

More recently, the work of Monopoli (1984, cited in Dana, 1986) indicated that culture-specific stimuli was necessary for personality assessment of unacculturated Hopi and Zuni Indians, but the Murray TAT was more useful with acculturated individuals. Avila-Espada (1986) found that, following the development of an objective scoring system and norms, the standard TAT can be a clinically useful instrument for personality assessment of European Spaniards.

Traditionally, projective tests have fared well in clinical settings, but have presented a host of problems with respect to psychometric rigor (Murstein, 1963). In recent years, however, there has been interest in clinically useful

projective techniques satisfying psychometric standards (Avila-Espada, 1986; Dana, 1986; Sobel, 1981). There is a need to develop psychological tests for reliable and valid diagnosis and personality assessment of minority children (Padilla, 1979) and to create culture-specific norms for projective tests (Exner & Weiner, 1982; Dana, 1986). Based upon these considerations, the TEMAS thematic apperception test was developed with culturally relevant stimuli. There are parallel minority and nonminority versions of TEMAS stimuli (Costantino, Malgady, & Rogler, 1988) embodying the following features: structured stimuli and diminished ambiguity to pull for specific personality functions; chromatically attractive, ethnically relevant and contemporary stimuli to elicit diagnostically meaningful stories; representation of both negative and positive intra-personal and inter-personal functions in the form of conflicts or dilemmas which require a solution; and objective scoring of both thematic structure and content. The rationale for these and other departures from traditional projective techniques (e.g., reduced ambiguity, color) is based on empirical research conducted with the TAT.

The presentation of culturally relevant and familiar projective test stimuli was explored in Thompson's (1949) Black TAT, based on the assumption that similarity between stimulus and examinee facilitates identification with the characters in the pictures and therefore promotes greater verbal fluency and self-disclosure. Projective stimuli

traditionally have been ambiguous, in order to bypass ego defenses and allow latent psychological conflict to be more freely expressed; however, TEMAS was conceived following more recent thinking that diminished ambiguity and increased structure facilitates verbal fluency and enables a more focused understanding of the examinee's personality functioning (Epstein, 1966; Sobel, 1981). That is, when projective stimuli are structured to "pull" specific personality functions, unlike ambiguous stimuli, a more reliable and valid clinical interpretation of thematic content may be achieved.

Both clinicians and researchers alike acknowledge that color has an impact on the perception of projective stimuli (Murstein, 1963) and that integration of color and form is considered a sign of emotional maturity and cognitive organization (Siipola, 1950). During the 1950's several studies documented that chromatic TAT stimuli enhanced verbal fluency and more accurately discriminated between clinical and control subjects (e.g., Brackbill, 1951). Murstein (1963) has suggested that color facilitates such differentiation of psychiatric and normal examinees because achromicity reinforces sadness as an affective response to TAT stimuli. Thus, based upon this evidence and reasoning, the TEMAS stimuli were developed in color.

The representation of psychological conflict in TEMAS stimuli was based on the methodology of Kohlberg (1976), who developed stories portraying moral dilemmas to assess the

moral development of children. Similarly, the TEMAS stimuli portray a split scene showing psychological dilemmas; the examinee must resolve the antithetical situations portrayed, and the examining clinician evaluates the adaptiveness of the resolution of conflict. The conflicts depicted in TEMAS stimuli were designed to evoke disclosure of specific personality functions which are prominent in personality theory and also are key diagnostic indicators of psychopathology: Integrity of interpersonal relations, control of aggressive impulses, control of anxious and depressive feelings, achievement motivation, ability to delay gratification, self concept of competence, self/sexual identity, moral judgment, and reality testing (Bellak, Hurvich, & Gediman, 1973).

The TEMAS stimuli were created by a professional artist, who worked closely with the test author (Costantino, 1978), in an attempt to pictorially represent a variety of psychosocial situations. The stimuli embody a wide variety of problematic life situations and experiences in inner-city impoverished environments, such as familial scenes within the home, solitary dream-like and fantasy states, street scenes involving peers and adults, sports activities, and situations occurring in school settings. The antithetical nature of the situations portrayed in the pictures enable positive or negative feelings to be projected in thematic content and manifested as adaptive or maladaptive resolutions of the underlying dilemmas. These situations pull themes expressive

of varying degrees of psychopathology, ranging from severe pathology (e.g., morbidity, suicidal ideation, depression, impulsivity, isolation, delusion) to highly adaptive functioning.

The first purpose of the present study was to compare the normative profiles of normal school children and clinical children within different Hispanic subcultures, and to compare school or clinical children across cultures. The second purpose was to compare reliability and criterion-related (concurrent) validity estimates across Hispanic subcultures. The groups examined were school and clinical children, and the three cultures compared where native Puerto Ricans, New York Puerto Ricans, and Argentineans.

Method

Subjects

The native Puerto Rican children were public and private school students (N = 280) and psychiatric outpatients (N = 50) from San Juan, Puerto Rico. The school sample consisted of 140 public and 140 private school students, nearly equally distributed with respect to sex in grades kindergarten to six. The public v. private school distinction was introduced to ensure variability due to socioeconomic status (SES), which has been restricted in previous studies. The psychiatric sample consisted of outpatients from the University of Puerto Rico Medical Center who were diagnosed according to DSM-III as experiencing conduct, anxiety, or adjustment disorders.

The public, private and clinical groups were comparable in sex and age distribution (M = 8.63 years-old, SD = 2.12). However, there were rather dramatic differences between groups with respect to household composition and SES. The father was present in 90% of the households of private school families, compared to only 59% in the public school and 40% in the clinical families. Moreover, 7% of the private school families were receiving some form of public assistance (e.g., food stamps, subsidized housing) relative to 65% of the public school and 60% of the clinical families. Parental occupations were much higher on the Hollingshead SES scale in the private school group (fathers' M = 4.83, SD = 1.60; mothers' M = 5.29, SD = 1.27) compared to public school and clinical groups (fathers' M = 2.84, SD = 1.73; mothers' M = 3.50, SD = 2.10). Parents of the private school children also were better educated, with a mean of 15.5 years of education, compared to parents of the public school (M = 9.8 years) and clinical (M = 10.75 years) children.

The New York Puerto Rican examinees consisted of 167 first to sixth graders in public schools and 67 outpatients from a community mental health center, both groups nearly equally distributed with respect to sex. The public school students' mean age was 9.26 (SD = 2.35), whereas the outpatient children were slightly older (M = 10.15, SD = 2.78). All New York examinees were from low to lower-middle SES families (Hollingshead SES M = 4.65, SD = 1.28). The clinical and public school samples also were comparable in

terms of household composition: the father was present in only 31% of the households.

About half of the clinical children were diagnosed as having adjustment disorders. The next most common diagnosis was conduct disorder (22%), followed by developmental disorder (14%). The remaining cases were diagnosed as anxiety disorders.

The South American examinees were 59 public school children from grades two to seven in Buenos Aires, Argentina, once again, nearly equally divided by sex, with a mean age of 9.67 (SD = 2.62). These children were largely from middle-class families in which fathers were primarily employed in managerial or professional occupations and mothers were either housewifes or employed in skilled occupations.

Procedures

The full set of 23 TEMAS pictures (minority version) was administered on an individual basis to the native Puerto Rican children in Spanish and to the New York Puerto Rican children in their preferred language (usually English) by Puerto Rican examiners, who were graduate psychology students trained to administer the test. The Argentinean children were also tested individually in Spanish by two clinical psychologists using the nonminority short form consisting of 10 TEMAS pictures. The short form was administered because of time constraints on the two examiners.

The full 23 pictures were administered either in two one-hour sessions, or in a single session with a break after

one hour. The short form was administered in a single 45 minute session. All TEMAS tests were scored by bilingual graduate psychology interns who were blinded to examinees' demographic backgrounds.

In order to assess concurrent validity in the native Puerto Rican groups, the children were also administered the trait scale of Spielberger's State-Trait Anxiety Inventory (Inventario de Ansiedad Estado Y Rasgo para Ninos), the Piers-Harris Self Concept Scale (Spanish translation), and the NIMH Center for Epidemiological Studies--Depression Scale (CES-D; Spanish translation). Validity estimation for New York Puerto Ricans has been reported elsewhere (see Costantino, Malgady, & Rogler, 1988). Officials in the public schools in Argentina permitted only the Piers-Harris scale to be administered.

TEMAS Administration and Scoring

After establishing rapport with the examinee, the examiner introduced the TEMAS test with the following instructions: "I have several interesting pictures that I am going to show you. Look at the persons and places in the pictures and tell me a complete story about each picture, one that has a beginning and end. The story should answer three questions: What is happening in the picture now? What has happened before? and What will happen in the future?" Subsequently, the examiner recorded the story verbatim and the total storytelling time. The maximum time for a story was typically three to five minutes.

Examinees were given the opportunity to tell a complete story in a spontaneous manner without prompting. A story is complete if it relates: (1) the identities of and relationships among the characters; (2) identification of the setting; (3) what event is presently taking place; (4) what the characters did before; (5) what the characters will be doing in the future; and (6) what the main character is thinking and feeling upon resolution of the story's conflict. When any of these details was omitted, inquiries were conducted to prompt this information (no more than one prompt per question).

The TEMAS tests were scored according to standardized instructions (see Costantino, Malgady, & Rogler, 1988 for complete details) on indices of cognitive, affective, and personality functioning. The main cognitive indices consist of number of inquiries or prompts, storytelling time, number of omissions and transformations of details, and recognition (or not) of the conflict depicted. Affective indices are based on feelings ascribed to the main character at the end of a story (i.e., happy, sad, angry, fearful, neutral, or ambivalent) and whether or not such affect is congruent with thematic content. The nine personality functions are scored on a 4-point rating scale according to age-appropriate behavior as follows. A score of "1" indicates the presence of highly maladaptive or pathological resolution of the conflict depicted; "2" reflects a moderately maladaptive resolution; "3" represents a partially adaptive resolution;

and "4" represents a highly adaptive resolution.

Results

Means and standard deviations on the main TEMAS scoring indices (cognitive, affective, and personality functions) are shown for the six Hispanic groups in Table 1, where scores are averaged across pictures. A one-way analysis of variance (ANOVA) was conducted to determine whether the group means differed; however, because there were 22 TEMAS variables and relatively small sample sizes in three groups (*Ns* = 50-67) a multivariate analysis was precluded. Therefore, a Bonferroni procedure was used to control the family-wise Type I error rate; setting the significance level at .001 for each of the ANOVAs, an overall error rate was established at .022. When groups differed significantly on a given TEMAS index, post hoc contrasts where conducted by the Scheffe test (p = .001). The results of the ANOVAs and series of Scheffe tests are reported in Table 2.

Insert Tables 1 and 2 about here

Table 2 shows that the six groups differed significantly on all major cognitive indices except transformations, all affective functions except fearfulness, and on all personality functions. However, because the Scheffe test is more conservative (particularly with six groups) than the omnibus *F*-test, in three instances of significant omnibus *F*-tests (sad affect, congruence of affect with theme, and

reality testing) no Scheffe contrasts were significant. In addition, not all the significant Scheffe outcomes presented in Table 2 are meaningful comparisons (e.g., Argentina public school vs. Puerto Rican clinical difference in neutral affect). Therefore, only meaningful comparisons on the remaining TEMAS indices are discussed further: intracultural comparisons between school and clinic samples, and intercultural comparisons of school or clinic samples.

Intracultural Comparisons

Native Puerto Rican Children. Comparisons among Puerto Rican samples (see Tables 1 and 2), revealed that the clinical children required more inquiries or prompts to complete a story and told shorter stories (less fluency) than the private school children; they also spoke for less time and more often omitted details (characters, setting, event) than both the public and private school samples. Affectively, there were no significant differences between these three groups. With regard to personality functioning, private school children had themes expressing more adaptive person relations and greater control of anxiety and depressive feelings than the clinical children, and better control of aggressive impulses than public school children.

New York Puerto Rican Children. The Puerto Rican children in New York public schools differed cognitively from their clinical counterparts only in a tendency to commit fewer omissions, and affectively, only in expressing happier themes. The public school children also related themes

expressing more adaptive person relations, control of aggression, control of anxiety/depression, achievement motivation, sexual identity, and moral judgment.

Intercultural Comparisons

Public School Groups. Among public school children, native Puerto Ricans required more inquiries, were less fluent, and demonstrated less recognition of conflict than New York Puerto Ricans; they made more omissions than both New York and Argentinean children. Argentinean children were more verbally fluent than New York children. Affectively, New York children expressed more happy themes than Argentineans, but paradoxically, angrier themes than native Puerto Ricans. Conversely, Argentinean children's stories were more ambivalent than the other two cultures.

In terms of personality functioning, the New York Puerto Rican and Argentinean children expressed themes with more adaptive person relations, control of aggression, achievement motivation, and moral judgment than native Puerto Rican children. New York children's stories also revealed more adaptive control of anxious/depressive feelings and sexual identity than did Argentinean or Puerto Rican children's stories. On the other hand, Argentinean children expressed the most ability to delay gratification, and also expressed more positive self concepts than Puerto Rican children.

Clinical Groups. The comparisons between the native and New York Puerto Rican clinical groups revealed consistently higher cognitive functioning in the latter sample. New York

Puerto Ricans required fewer prompts to complete stories, their stories were lengthier, they spent more time telling stories, they omitted fewer details and more often recognized the conflict depicted in the TEMAS pictures.

There were no differences between these two groups in scoring affective functioning. Personality profiles were also similar, with one exception. New York children expressed better control of aggressive impulses than native Puerto Rican children.

Reliability and Validity

Native Puerto Rican Children. Internal consistency (alpha) reliability estimates of the TEMAS indices are reported in Table 3 for the native Puerto Rican school and clinical groups. As Table 3 shows, the more objectively scored cognitive indices (i.e., number of inquiries, fluency, time, number of omissions, and recognition of conflict) generally exhibited acceptable internal consistency estimates within the three groups. However, in stories told in response to numerous TEMAS pictures no transformations were recorded, thus leading to many pictures with zero variance and lower estimates of internal consistency in the private school and clinical groups. With respect to the affective state attributed to the main character upon story resolution, internal consistency reliabilities of happy, sad, neutral, and congruence indices were moderate to high. Ambivalence has very low reliability in the private school group, again because of many pictures with no variance. Scoring of

fearful and angry affect evidenced marginal reliabilities. The ratings of personality functions exhibited generally lower internal consistencies compared to the more objective indices. Self/sexual identity, moral judgment, and reality testing showed low reliability estimates, but this can be attributed to the relatively few pictures that pull these functions (i.e., these are analogous to 3- to 6-item tests). More acceptable reliability estimates were obtained across the three groups on person relations, aggression, and self concept.

Insert Table 3 about here

Concurrent validity was evaluated separately for school and clinical groups by regressing the criterion-related measures (trait anxiety, depression, self concept) on the profile of nine personality functions. In the combined public and private school group, the three multiple correlations were significant. In the analysis of trait anxiety, $R = .31$ ($p < .005$), and ability to delay gratification was the only significant predictor. In the analysis of depression, $R = .29$ ($p < .01$), and delay of gratification again was the sole predictor. In the analysis of self concept, $R = .26$ ($p < .05$), and achievement motivation and moral judgment were significant predictors. Multiple correlations were not significant in the clinical group, due in part to the small sample size. The magnitude

of concurrent validity coefficients is somewhat lower in the native Puerto Rican group compared to validity reported on New York Puerto Ricans (see Malgady, Costantino, & Rogler, 1984).

A two-group discriminant analysis was conducted using TEMAS personality profiles to predict clinical v. school group status. The two groups differed significantly in TEMAS profiles, F (9, 321) = 3.52, $p < .001$, with about 9% of the variance explained. The strongest discriminators were person relations and anxiety ($ps < .001$). Classification analysis revealed that 69% of the children were correctly reclassified into their designated groups. Thus, the results of this analysis lend some support to the validity of TEMAS personality profiles as a gross discriminator of clinically impaired v. nonimpaired status.

New York Puerto Rican Children. The psychometric properties of TEMAS, such as internal consistency, test-retest and inter-rater reliability, concurrent validity and clinical utility in predicting psychotherapy outcomes were reported in earlier studies with New York Puerto Rican children (Costantino, Malgady, & Rogler, 1988; Malgady, Costantino, & Rogler, 1984). The validity of TEMAS personality profiles in discriminating between DSM-III diagnostic groups is also reported elsewhere (Costantino, Malgady, Rogler, & Tsui, 1988). Generally, the outcomes of these earlier New York studies have produced more favorable reliability and validity estimates (e.g., 89% accuracy in

discriminant classification analysis) than in the San Juan, Puerto Rico research.

Argentinean Children. The inter-rater reliability of scoring TEMAS personality functions was established with two Argentinean clinical psychologists (one with extensive training in scoring TEMAS and the other a newly trained scorer). The two raters, who independently scored a sample of 20 protocols, reached a high level of agreement (75-95%) across the 10 pictures. Median inter-rater agreement was 81% and in no case were the two independent ratings discrepant by more than one rating scale point.

This level of agreement is somewhat higher than that reported in an earlier study (27-100% across 23 pictures; median = 59%; see Malgady, Costantino, & Rogler, 1984). This discrepancy may be a reflect the refinement of the TEMAS scoring system, instructions, and training examples with the test's publication in 1988.

The nine personality function indices of the TEMAS short form were correlated with the total and subscale scores on the Piers-Harris Scale. The only correlations that were significant involved the Happiness subscale of self concept with person relations (r = .30, p < .05) and delay of gratification (r = .34, p < .05). Thus, there is modest evidence of the concurrent validity of TEMAS within the Argentinean culture.

Discussion

The need to create cross-cultural norms for projective

tests (Dana, 1986; Exner & Weiner, 1982) is addressed by the standardization of TEMAS on Hispanic, Black and White children in the United States, and by our present efforts to collect comparative data on native Puerto Rican and Argentinean children. This research is similar to Avila-Espada's (1986) efforts to develop a comprehensive scoring system for the TAT to assess, among other variables, interpersonal functioning, aggression, depression and achievement motivation.

The minority version of the TEMAS apperception test was originally developed as a clinical tool, presenting ethnically familiar characters in urban and fantasy settings, in order to facilitate minority children's identification with the stimuli and thereby enhance verbal fluency and self disclosure. Earlier studies with New York City examinees indicated that Hispanic and Black children indeed are more verbally fluent in telling stories about TEMAS pictures in comparison to TAT pictures (Costantino, Malgady, & Vazquez, 1981; Costantino & Malgady, 1983). Other studies established the reliability of TEMAS, some rudimentary evidence of concurrent validity, and clinical sensitivity to detecting psychotherapeutic outcomes (Costantino, Malgady, Rogler, & Tsui, 1988; Malgady, Costantino, & Rogler, 1984). The results of the present study lend support to the use of TEMAS with examinees in Puerto Rico and Argentina. However, reliability and validity estimates for the native Puerto Rican children were less favorable than for mainland groups

studied. Further analyses of the TEMAS pictures with native Puerto Rican children currently are in progress to examine the characteristics of individual pictures. Preliminary scrutiny suggests that some of the pictures do not pull the designated personality functions as consistently in Puerto Rico. This seems to be associated with pictures depicting urban settings common in New York City, which contrast sharply with the ambiance of rural Puerto Rico and metropolitan San Juan. Thus, after eliminating pictures which are inappropriate in the Puerto Rico environment, independent studies of a reduced subset of TEMAS stimuli are warranted.

The Argentinean children, who were administered the nonminority short form, showed significantly higher means on six of the nine personality functions (i.e., more adaptive profiles) than native Puerto Ricans, but largely on a par with the New York group. This difference in normative profile may be attributable to several factors, such as the different number of TEMAS pictures, differential training of examiners, and psychosocial or sociopolitical conditions.

Further analyses in the Argentinean study also are in progress to assess the characteristics of the individual pictures. Preliminary evidence suggests that the characters, setting, and events of some pictures are not appropriate in Argentinean culture. For example, one picture was redrawn by showing children playing soccer instead of basketball; in another, a picture of a policeman rewarding a baseball team

was redrawn to depict a coach rewarding a soccer team. Similarly, a pictures showing report card grades of "A" and "F" was changed to the Argentinean system of "10" and "1", respectively. It was interesting to note that the majority of these children scored lowest in moral judgment in telling stories about a policeman (as a rewarding authority) who tended to be perceived as a punitive agent. This may be associated with recent historical events, as Argentina is emerging from a military regime in which police are associated with punitive actions and not positive reinforcement.

These preliminary results demonstrate that the standardization of a thematic apperception test in cross-cultural research must taken into serious account variations in the stimuli necessitated by many aspects of cultural diversity. We are in the process of extending cross-cultural research with TEMAS, examining culture-specific variations in the pictures, with larger samples of children in Argentina, Peru, Spain and Italy.

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Author Notes

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Table 1
TEMAS Means and Standard Deviations in Six Hispanic Groups

	PR Public (N = 140)		PR Private (N = 140)		PR Clinic (N = 50)		NY Public (N = 167)		NY Clinic (N = 67)		ARG Public (N = 59)	
Index	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Inquiries	.36	.59	.20	.53	.58	.76	.02	.08	.06	.15	.06	.14
Fluency	85.97	27.75	101.64	36.02	68.35	20.72	111.48	40.59	107.22	33.48	181.00	8.43
Time	3.63	1.09	3.41	1.05	1.14	.33	3.78	1.04	3.16	1.32	3.52	1.53
Omissions	1.62	.77	1.60	.59	2.97	.96	.82	.50	1.61	.76	.74	.71
Transform.	.17	.18	.11	.01	.21	.73	.12	.11	.18	.19	.17	.19
Conflict	.21	.19	.12	.14	.19	.19	.09	.10	.07	.06	.17	.16
Happy	.40	.20	.43	.22	.40	.21	.47	.21	.33	.22	.32	.18
Sad	.28	.19	.28	.15	.39	.18	.38	.22	.29	.20	.32	.20
Angry	.09	.10	.08	.09	.11	.13	.17	.13	.11	.12	.10	.11
Fearful	.08	.10	.10	.11	.07	.07	.07	.10	.09	.09	.10	.09
Neutral	.13	.25	.10	.19	.17	.26	.05	.08	.06	.16	.01	.13
Ambivalent	.01	.04	.01	.03	.02	.05	.01	.02	.01	.04	.08	.10
Congruence	.06	.09	.03	.06	.07	.11	.02	.03	.05	.12	.03	.10
Pers. Rel.	2.52	.22	2.67	.29	2.45	.20	2.87	.21	2.49	.33	2.77	.43
Aggression	2.06	.22	2.31	.39	2.14	.25	2.78	.20	2.44	.38	2.66	.42
Anxiety/Dep.	2.27	.29	2.48	.37	2.16	.22	2.90	.18	2.33	.35	2.58	.37
Ach. Motiv.	2.80	.29	2.92	.30	2.80	.28	3.03	.25	2.79	.35	3.17	.49
Delay Grat.	2.66	.40	2.76	.44	2.55	.37	2.79	.23	2.62	.52	3.14	.61
Self Concept	2.70	.47	2.89	.50	2.63	.46	3.00	.46	2.73	.33	3.19	.68
Sex. Ident.	2.80	.42	2.83	.55	2.64	.48	3.40	.51	2.50	.52	2.76	.88
Moral Judg.	2.32	.31	2.56	.39	2.29	.30	2.91	.36	2.52	.34	2.74	.68
Real. Test.	2.45	.54	2.77	.50	2.47	.37	2.73	.65	2.62	.62	2.77	.71

Table 2
ANOVA and Scheffe Results Comparing Groups on TEMAS Indices

Index	*F* (5, 617)	Significant* Scheffe Contrasts
Inquiries	20.65*	3-2,4,5,6; 4-1
Fluency	115.25*	6-1,2,3,4,5;3-2,4,5; 4-1
Time	70.23*	3-1,2,4,5,6
Omissions	117.74*	3-1,2,4,5,6; 4-1,2,5; 6-1,2,5
Transform.	1.96	None Warranted
Conflict	12.09*	1-4,5; 3-5
Happy	8.87*	4-5,6
Sad	5.62*	None Significant
Angry	6.48*	4-1,2
Fearful	1.86	None Warranted
Neutral	8.15*	3-6
Ambivalent	33.20*	6-1,2,3,4,5
Congruence	5.19*	None Significant
Pers. Rel.	32.96*	3-2,4,6; 4-1,2,5; 6-1,5
Aggression	71.70*	1-2,4,5,6; 4-2,3,5; 5-3; 6-2,3
Anxiety/Dep.	68.93*	4-1,2,3,5,6; 6-1,3,5; 2-3
Ach. Motiv.	20.15*	6-1,2,3,5; 4-1,3,5
Delay Grat.	21.24*	6-1,2,3,4,5
Self Concept	15.79*	6-1,3,5; 4-3
Sex. Ident.	29.30*	4-1,2,3,5,6
Moral Judg.	31.44*	4-1,2,3,5; 6-1,3
Real. Test.	5.32*	None Significant

*$p < .001$ (family-wise significance level, $p = .022$)

Note.--Group 1 = PR Public; 2 = PR Private; 3 = PR Clinical; 4 = NY Public; 5 = NY Clinical; 6 = ARG Public

Table 3
Internal Consistency of TEMAS with Native Puerto Rican Groups

Index	Public	Private	Clinical
Inquiries	.89	.95	.95
Fluency	.93	.91	.90
Time	.96	.95	.95
Omissions	.87	.76	.80
Transform.	.80	.51	.50
Conflict	.86	.82	.87
Happy	.88	.83	.83
Sad	.81	.71	.73
Angry	.65	.68	.77
Fearful	.79	.76	.58
Neutral	.96	.93	.96
Ambivalent	.70	.25	.83
Congruence	.78	.73	.70
Pers. Rel.	.87	.78	.75
Aggression	.78	.69	.77
Anxiety/Dep.	.75	.54	.48
Ach. Motiv.	.79	.38	.53
Delay Grat.	.65	.49	.62
Self Concept	.82	.81	.92
Sex. Ident.	.61	.45	.49
Moral Judg.	.31	.25	.46
Real. Test.	.58	.36	.95